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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/335,640	06/18/1999	MATTHEW J. CONWAY	MS-68(116627	6699

7265 7590 05/28/2002
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EXAMINER

HAILU, TADESSE

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 05/28/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

PA

Office Action Summary

Application No.
09/335,640

Applicant(s)
Matt Conway et al

Examiner
Tadesse Hailu

Art Unit
2173



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 26, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12, 14, 16-22, 24, 33-40, 42, 44, 46-51, 53, 54, 56, and 58-63 is/are rejected.
- 7) ☒ Claim(s) 10, 13, 15, 23, 25-32, 41, 43, 45, 52, 55, and 57 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

1. This Office Action is in response to the Amendment dated 3/36/2002 for the patent application (09/335,640) filed on 6/18/1999.

Status of the claims

2. Claims 1-63 are pending.

Drawing

3. The drawings are objected to by the Draftsperson as noted in the form PTO 948. Submission of formal drawings is required.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3, 5-9, 11, 12, 14, 16-22, 24, 33-40, 42, 44, 46-51, 53, 54, 56, and 58-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al (6,166,738) and Joskowicz et al (5,669,006).**

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The examiner has carefully considered all the claims 1-63. The present invention relates to a user interface to objects. The present invention exploits the spatial memory of properties of an object.

Per claims 1 and 47:

As can be seen from the cited reference, the Prior art is basically identical to the present invention in that the Robertson patent discloses a graphical user interface in which object thumbnails are rendered on a simulated three-dimensional surface as in the present invention.

Robertson discloses a man-machine interface method for permitting a user to act on thumbnails (see claim 1 of Robertson's); as per generating a three-dimensional environment (see claim 16 of Robertson's); as per determining a two-dimensional location (see claim 1 of Robertson's); as per generating the thumbnails within the three-dimensional environment (see claim 1 of Robertson's).

While Robertson patent discloses a perspective view facility 252 to determine the thumbnail object location or position information (col 17, lines 29-61), the location or position information of Robertson's does not explicitly show further information about the object, such as the depth parameter of the object thumbnails on the three dimensional surface is not explicitly shown. However, Joskowicz et al (5,669,006) discloses this shortcomings. The Joskowicz patent relates to generating a spatial layout of the visible segments on a computer display screen. Joskowicz further discloses obtaining a screen layout for a given set of object ("clique") is to find the locations of its associated episodes and depths (i.e., Z-ordering) on the screen (col 3, lines 22-

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65). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate the three-dimensional features of an object, such as depth information of Joskowicz's with the Robertson's three-dimensional environment helps to determine locations of associated objects and their respective depths on a simulated three dimensional surface on a computer display screen. Thus, the combination of the Robertson reference and Joskowicz reference would result in the invention recited in claims 1 and 47.

Per claim 34:

as per "a system which permits a user to interact with thumbnails,..." (see claim 1 or 23 of Robertson's); as per "an input facility for accepting user inputs" (see claim 23 of Robertson's); as per "a storage facility containing a two-dimensional location, cursor location a location information and state information ..." (see col 15, lines 39-64, claim 24 of Robertson's); as per a processing unit which accepts user inputs, updates a two-dimensional location, cursor location, position or location information (see claim 23 of Robertson's); generating video output and a video display unit (see claim 23 of Robertson's).

As mentioned in claim 1, While Robertson patent discloses a perspective view facility 252 to determine the thumbnail object location or position information (col 17, lines 29-61), the location or position information of Robertson's does not explicitly show information about the object, such as the depth parameter of the object thumbnails on the three dimensional surface is not explicitly shown. However, Joskowicz et al (5,669,006) discloses this shortcomings. The Joskowicz patent relates to generating a spatial layout of the visible segments on a computer

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display screen. Juskowicz further discloses obtaining a screen layout for a given set of object (“clique”) is to find the locations of its associated episodes and depths (i.e., Z-ordering) on the screen (col 3, lines 22-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate the three-dimensional features of an object, such as depth information of Juskowicz’s with the Robertson’s three-dimensional environment helps to determine locations of associated objects and their respective depths on a simulated three dimensional surface on a computer display screen. Thus, the combination of the Robertson reference and Juskowicz reference would result in the invention recited in claim 34.

Per claim 2:

as per “... the depth is a linear function of at least one parameter of the object associated with the thumbnail” (see Juskowicz: col 4, lines 52-col 6, lines 62).

Per claim 3:

as per “... the depth is a polynomial function of at least one parameter of the object associated with the thumbnail” (see Juskowicz: col 4, lines 52-col 6, lines 62).

Per claim 5:

Robertson and Juskowicz disclose that object may be related or rendered on to user’s explicit selection or based on a property , such as age, storage location, etc. (See Robertson: col 7, lines 12-30).

Per claims 6 and 48:

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Robertson and Joskowicz disclose the limitations recited in claim 6 (see claims 5 and 6 of Robertson's).

Per claims 7 and 49:

Robertson and Joskowicz disclose the limitations recited in claim 7 (see *col 23, lines 30-40 of Robertson's*).

Per claims 8 and 50:

Robertson and Joskowicz disclose the limitations recited in claim 8 (see *col 17, lines 62-col 18, lines 5 of Robertson's*).

Per claims 9 and 51:

Robertson and Joskowicz disclose the limitations recited in claim 9 (see *claims 8 and 10 of Robertson's*).

Per claims 11 and 53:

Robertson and Joskowicz disclose the limitations recited in claim 11 (see *claim 10 of Robertson's*).

Per claims 12 and 54:

Robertson and Joskowicz disclose the limitations recited in claim 12 (see *claim 11 of Robertson's*).

Per claims 14 and 56:

Robertson and Joskowicz disclose the limitations recited in claim 14 (see *claim 13 of Robertson's*).

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Per claim 16:

Robertson and Joskowicz disclose the limitations recited in claim 16 (see *claim 1 or 23 of Robertson's*).

Per claim 17:

Robertson and Joskowicz disclose the limitations recited in claim 17 (see *claim 15 of Robertson's*).

Per claims 18 and 58:

Robertson and Joskowicz disclose the limitations recited in claim 18 (see *col 17, lines 1-61, claim 16 of Robertson's*).

Per claims 19 and 59:

Robertson and Joskowicz disclose the limitations recited in claim 19 (see *claim 17 of Robertson's*).

Per claims 20 and 60:

Robertson and Joskowicz disclose the limitations recited in claim 20 (see *claim 18 of Robertson's*).

Per claim 21:

Robertson and Joskowicz disclose the limitations recited in claim 21 (see *col 12, lines 36-53 of Robertson's*).

Per claim 22:

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Robertson and Joskowicz disclose the limitations recited in claim 22 (see *col 12, lines 36-53 of Robertson's*).

Per claim 24:

Robertson and Joskowicz disclose the limitations recited in claim 24 (see *col 6, lines 39-55, col 9, lines 20-34 of Robertson's*).

Per claim 33:

Robertson and Joskowicz disclose the limitations recited in claim 33 (see *col 6, lines 39-55, col 9, lines 20-34, col 12, lines 57-col 13, lines 9 of Robertson's*).

Per claim 35:

Robertson and Joskowicz disclose the limitations recited in claim 35 (see *claim 24 of Robertson's*).

Per claim 36:

Robertson and Joskowicz disclose the limitations recited in claim 36 (see *claim 25 of Robertson's*).

Per claim 37:

Robertson and Joskowicz disclose the limitations recited in claim 37 (see *claim 26 of Robertson's*).

Per claim 38:

Robertson and Joskowicz disclose the limitations recited in claim 38 (see *claim 27 of Robertson's*).

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Per claim 39:

Robertson and Joskowicz disclose the limitations recited in claim 39 (see *claim 28 of Robertson's*).

Per claim 40:

Robertson and Joskowicz disclose the limitations recited in claim 40 (see *claim 29 of Robertson's*).

Per claim 42:

Robertson and Joskowicz disclose the limitations recited in claim 42 (see *claim 13 and 23 of Robertson's*).

Per claim 44:

Robertson and Joskowicz disclose the limitations recited in claim 44 (see *claim 23 of Robertson's*).

Per claim 46:

Robertson and Joskowicz disclose the limitations recited in claim 46 (see *claims 18 and 35 of Robertson's*).

Per claims 61 and 63:

Claims 61 and 63 correspond generally to independent claim 1 and recite similar features in a method and in machine readable medium form respectively, and therefore are rejected under the same rationale.

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Per claim 62:

Claim 62 corresponds generally to independent claim 34 and recites similar features in a system form, and therefore are rejected under the same rationale.

6. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al (6,166,738) and Joskowicz et al (5,669,006) and Baldwin (5,701,444).**

claim 4 recites a depth represented in exponential function of at least one parameter of the object associated with the thumbnail. While Robertson and Joskowicz discloses depth represented linear and quadratic functions, representing depth in exponential function not shown. However, '444 discloses depth represented in exponential function (col 45, lines 16-22). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate exponential function of '444 with Robertson and Joskowicz's depth representing functions (linearly, and quadratically), thus, this incorporation helps in providing a plurality of different depth functions applied with the Robertson and Joskowicz's system.

Allowable Subject Matter

7. Claims 10, 13, 15, 23, 25-32, 41, 43, 45, 52, 55 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Robertson et al ('738) discloses manipulating a plurality of object states, such as active, selected,

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moved, pushed, and location update determination, but ('738) fails to teach manipulating a floated state, such as manipulating a float input/ floated thumbnail, therefore, consequently, the prior art of records fails to disclose the limitations associated with a float input/floated thumbnail as recited in the above objected claims. Furthermore, while Robertson and Joskowicz disclose depth (or Z-order) of an image but the prior art of records fails to disclose determining a fade to be applied to the thumbnail based on its depth as recited in claim 27. Thus, prior art neither renders obvious nor anticipates the combination of claimed elements in light of the specification.

Response to Arguments

9. Applicant's arguments filed 3/26/2002 have been fully considered but they are not persuasive. Applicant argues that "Joskowicz et al patent does not teach determining the depth of a thumbnail as a function of at least one parameter of the object associated with the thumbnail" In contrast to the applicant's argument the Joskowicz's patent does teach the claimed subject matter. Joskowicz does teach a depth rendering process as a function of parameters; such function may be linear $Z(I) \leq Z(I+1)$ for each I such that $1 \leq i \leq (\text{size of Z-list})-1$ and such parameters include size, type and author interaction (col 3, lines 55-col 8, lines 51, Fig. 9). Thus, combining the ('738) with ('006) results in determining the depth as a function of parameter of the object associated with the thumbnail or icon (or (clique).

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Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Tadesse Hailu*, whose telephone number is (703) 306-2799. The Examiner can normally be reached on M-F from 10:00 - 7:30 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, *John Cabeca*, can be reached at (703) 308-3116 Art Unit 2173 CPK 2-4A51

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Tadesse Hailu

22 May 2002


RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173